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United States Patent [19]
Randall

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- [54] **SPURT MINIMIZING DISPENSING STRUCTURE**
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[58] **Field of Search** 222/547, 556, 222/568, 571

4,583,668	4/1986	Maynard, Jr.	222/568
4,811,871	3/1989	Wass et al.	222/477
5,139,182	8/1992	Appla	222/547
5,141,138	8/1992	Odet et al.	222/547
5,219,100	6/1993	Beck et al.	222/556
5,320,260	6/1994	Song et al.	222/547
5,392,938	2/1995	Dubach	215/254
5,454,489	10/1995	Vesborg	222/547
5,497,906	3/1996	Dubach	222/23
5,531,363	7/1996	Gross et al.	222/547
5,782,388	7/1998	De Nervo	222/556

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[57] **ABSTRACT**

A spurt-resistant spout for a dispensing structure includes (1) an internal tubular portion having a through bore connecting a dispensing orifice of the spout with the interior of the container, and (2) a surrounding wall portion surrounding the tubular portion. The tubular portion and the surrounding wall portion are sized and located so that little or no fluid is retained in and across the spout bore so as to prevent, or minimize, obstruction of the bore.

26 Claims, 2 Drawing Sheets

[56] **References Cited**
U.S. PATENT DOCUMENTS

3,091,373	5/1963	Kirschenbaum	222/547
3,117,701	1/1964	Stull	222/571
3,563,422	2/1971	Cruikshank	222/547
3,833,150	9/1974	Visser-Patings	222/571
3,980,211	9/1976	Owens	222/547
4,427,138	1/1984	Heinlein	222/546

